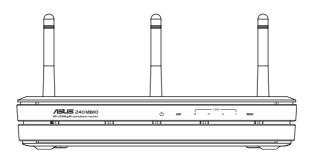


# WL-566gM Wireless Router



**User Manual** 

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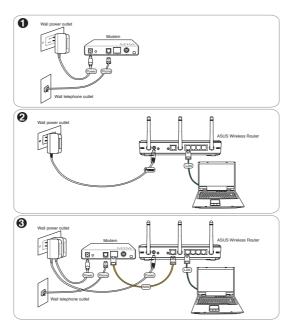


# 1. Package contents

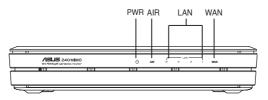
- WL-566gM wireless router x 1
- · Power adapter x 1
- Utility CD x 1
- RJ45 cable x 1
- · Quick Start Guide x 1

# 2. Connecting ADSL modem and wireless router

# 1) Cable connection



## 2) Status indicators



#### PWR (Power)

Off No power On System ready

Flashing-slow Firmware upgrade failed Flashing-quick EZsetup processing

### AIR (Wireless Network)

Off No power

On Wireless system ready

Flashing Transmitting or receiving data (wireless)

#### WAN (Wide Area Network)

Off No power or no physical connection

On Has physical connection to an Ethernet network
Flashing Transmitting or receiving data (through Ethernet cable)

### LAN 1-4 (Local Area Network)

Off No power or no physical connection

On Has physical connection to an Ethernet network
Flashing Transmitting or receiving data (through Ethernet cable)

## 3) Wall mount option

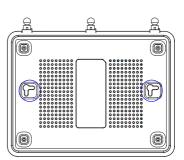
Out of the box, the ASUS Wireless Router is designed to sit on a raised flat surface like a file cabinet or book shelf. The unit may also be converted for mounting to a wall or ceiling.

Follow these steps to mount the ASUS Wireless Router to a wall:

- Look on the underside for the two mounting hooks.
- 2. Mark two upper holes in a flat surface.
- 3. Tighten two screws until only 1/4" is showing.
- 4. Latch the hooks of the ASUS Wireless Router onto the screws.



Note: Re-adjust the screws if you cannot latch the ASUS Wireless Router onto the screws or if it is too loose.





# 3. Configuring the wireless router



#### Note:

- Before you start, we recommend using a wired connection for initial configuration, which may avoid possible setup problems due to wireless uncertainty.
- ASUS also provides an EZSetup button for fast wireless configuration.
   If you would like to use EZSetup for your wireless network configuration,
   please refer to chapter 6 for more information.

The ASUS Wireless Router can meet various working scenarios with proper configuration. The default settings of the wireless router may need change so as to meet the individual needs; therefore, before using the ASUS Wireless Router, check the basic settings to make sure they all work in your environment.

You can configue the ASUS Wireless Router via your web browser. Connect a notebook PC or desktop PC to your ASUS Wireless Router (either directly or through a hub) with an Ethernet cable, or to establish a wireless connection between the terminal and the wireless router.

For the wireless connection, you need an IEEE 802.11b/g compatible device, such as an ASUS WLAN card. Disable encryption and set the SSID to "default" on your wireless card. If you want to configure the ASUS Wireless Router so as to access the Internet, you must have correct TCP/IP settings. Set the IP address of your terminal within the same subnet of your ASUS Wireless Router.

## 1) ASUS Wireless Router wired connection

The ASUS Wireless Router is supplied with an Ethernet cable in the package. Since the ASUS Wireless Router has integrated auto-crossover function, therefore, you can use either straight-through or crossover cable for wired connection. Plug one end of the cable to the WAN port on the rear panel of the router and the other end to the Ethernet port of your ADSL or Cable modem.

#### Wireless-Connection

Refer to your wireless adapter user manual for how to associate with a wireless router. The default SSID of the ASUS Wireless Router is "default" (in lower case), encryption is disabled and open system authentication is used.



Note: If configuration is done via wired connection, ignore this.

# 2) Setting IP address for wired or wireless connection

#### Getting IP address Automatically

The ASUS Wireless Router integrates DHCP server functions, therefore, you can make your PC to get the IP address automatically from the ASUS Wirelesss Router.



Note: Before rebooting your PC, the ASUS Wireless Router should be switched ON and in ready state.



### **Setting IP Manually**

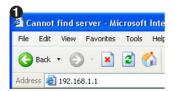
To set IP address manually, you need to know the default settings of the ASUS Wireless Router:

- IP address 192.168.1.1
- Subnet Mask 255.255.255.0

To set up the connection with a manually assigned IP address, the address of your PC and the wireless router must be within the same segment:

- IP address of your PC is 192.168.1.xxx (xxx can be any number between 2 and 254. Make sure the IP address is not used by other device)
- Subnet Mask is 255.255.255.0 (same as the ASUS Wireless Router)
- Gateway 192.168.1.1 (this is the ASUS Wireless Router)
- DNS 192.168.1.1 (ASUS Wireless Router IP address or your own).

# 3) Configuring the wireless router



Enter the following address in your web browser: http://192.168.1.1



nternet Protocol (TCP/IP) Properties

Obtain an IP address automatically

Use the following DNS server addresses
 Preferred DNS server: 192

Use the following IP address:

Default gateway:

Alternate DNS server:

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

192 . 168 . 1 . 8

255 . 255 . 255 . 0

192 . 168 . 1 . 1

192 . 168 . 1 . 1

Advanced...

DK Cancel

#### **Defaults**

User name: admin Password: admin

Cancel



After logging in, you can see the ASUS Wireless Router home page.

The homepage displays quick links to configure the main features of the wireless router.

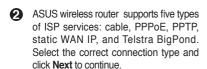


## 4) Quick setup

To start quick setup, click **Next** to enter the "Quick Setup" page. Follow the instructions to setup the ASUS Wireless Router.



Select your time zone and click Next.

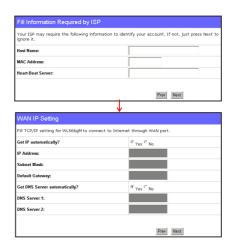




Select Internet Connection Type			
WL566gM supports several kinds of connection to Internet through its WAN port. Please select connection type you need. In addition, before getting on Internet, please make sure you have connected WL566gM's WAN port to your DSL or Cable Modern.			
<sup>©</sup> Cable Modem or other connection type that gets IP automatically.			
C ADSL connection that requires username and password. It is known as PPPoE.			
C ADSL connection that requires username, password and IP address, it is known as PPTP.			
C ADSL or other connection type that uses static IP address.			
C Telstra BigPond Cable Modern Service.			
Prev Next			

#### Cable user

If you are using services provided by cable ISP, select Cable Modem or other connection that gets IP automatically. If your ISP provides you hostname, MAC address, and heartbeat server address, fill these information into the boxes on the setting page; if not, click Next to skip this step.



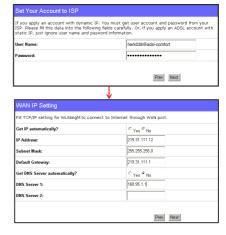
### **PPPoE** user

If you use PPPoE service, select ADSL connection that requires username and password. It is know as PPPoE. You need to input the username and password provided by your ISP. Click **Next** to continue.

Set Your Account to ISP				
If you apply an account with dynamic IP. You must get user account and password from your ISP. Please fill this data into the following fields carefully. Or, if you apply an ADSL account with static IP, just ignore user name and password information.				
User Name:	abc@hinnet.net			
Password:	•••••			
	Prev Next			

#### **PPTP** user

If you are using PPTP services, select ADSL connection that requires username, password and IP address. It is know as PPTP. Fill in the username, password and IP address provided by your ISP into the fields. Click Next to continue



#### Static IP user

If you are using ADSL or other connection type that uses static IP addresses, select ADSL or other connection type that uses static IP address. Input the IP address, subnet mask, and default gateway provided by your ISP. You can choose to specify DNS servers, or select to get DNS information automatically.



After the connection type setting is complete, you are to set up your wireless interface. Specify to your wireless router an SSID (Service Set Identifier), which is a unique identifier attached to packets sent over WLAN. This identifier emulates a password when a device attempts to communicate with your wireless router via WLAN. To connect to a wireless router, your wireless card must use the same SSID.



If you want to protect transmitted data, select a middle or high **Security Level** to enable encryption methods.

**Medium:** Only users with the same WEP key settings can connect to your wireless router and transmit data using 64bits or 128bits WEP key encryption.

**High:** Only users with the same WPA pre-shared key settings can connect to your wireless router and transmit data using TKIP encryption.



The ASUS wireless router configuration page provides a convenient approach to setup the WEP Keys: you can set up a Passphrase and let the system use certain algorithm to generate four WEP keys. Thus, instead of inputting long WEP keys, you can set up the encryption by fill in a single Passphrase.

For example, if we select WEP 64bits encryption mode and input 11111 as the Passphrase, the WEP Keys are generated as shown in the right picture. Record the Passphrase and the WEP keys in your notebook, then click **Finish**. A window prompts out asking you to save the settings. Click **Save&Restart** to activate the new settings.

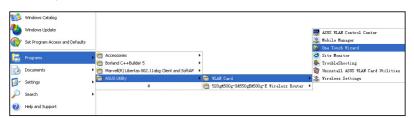




- After the settings on the wireless router are complete, we are to setup encrypted wireless connection between the wireless router and your PCs pre-installed with wireless cards. If your use ASUS Wireless Card, you can use ASUS One Touch Wizard to setup the connection. You can also choose Windows® XP Wireless Zero Configuration service to configure the wireless connection.
- Note: We recommend using 240 MIMO wireless adpaters to connect WL-566gM so as to achieve high speed data transmission.

# Configure WLAN Card with ASUS One Touch Wizard

If you have installed ASUS wireless card together with its utilities and drives on your PC, click Start -> Programes -> ASUS Utility-> WLAN Card -> One Touch Wizard to launch the One Touch Wizard utility.







 Select Connect to an existing wireless LAN (Station) radio button and click Next to continue.



 Next, we are to set up the encryption for the wireless adapter. Set Key Length to 64 bits (10digits), select Automatic Generation radio button and input 11111 into the Passphrase box and click Next.



Note: The encryption settings on your WLAN Card and your wireless router must be the same.



 ASUS One Touch Wizard searches and displays all the available stations in the Available Networks window as shown in the picture. Select your wireless router and press Next to continue.



 Wait for several seconds to get the wireless adapter connected to the wireless router. Press Next to continue.



 An IP configuration screen prompts out. Setup the IP address of your PC according to your network condition. After the setup is complete, click Finish to exit the One Touch Wizard.



# Windows® Wireless Zero Configuration service

For non-ASUS wireless adaptor user, you can set up the wireless connection via Windows® Wireless Zero Configuration (WZC) service.



 Double-click the wireless network icon on the task bar to view available networks. Select your wireless router and click Connect



A window prompts out asking for the encryption keys. Input the 10-digit keys you have set on the wireless router and click Connect. The connection is complete.

To adjust other settings of the wireless router, click on items on the menu to open a submenu and follow the instructions to setup the router. Tips are given when you move your cursor over each item.



# 4. Commonly used advanced features

The following pages are setup examples of commonly used advanced features. You can setup these features via a web browser.

## 1) How to setup encryption

#### WL-566gM encryption setup

Please refer to Page 9-11 for encryption setup information or to use ASUS EZSetup features which enable a quick encryption setup through several mouse clicks (Chapter 6).

### 2) Setting up a virtual server in your LAN

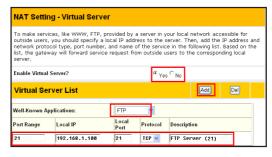


Virtual Server is a kind of technology which enables a computer within a local area network (LAN) to receive specialized packets from network, for example, when you need to make a host into an FTP server or Web server for outside user to access. Virtual DMZ is quite similar to Virtual Server, but it allows all incoming data packets instead of using policy to filter the packets.

Click Virtual Server in NAT Setting folder to open the NAT configuration page.



Select Yes to enable virtual server. For example, if host 192.168.1.100 need to be set to FTP server (Virtual server) which is accessible by outside user, we shall direct all incoming packets with 21 as the destination ports to the host. Therefore, FTP access request from outside users are forwarded to the host.



Click Finish.



Click Save & Restart to restart the wireless router and activate the settings.



### 3) Setting up virtual DMZ in your LAN

You can enable all internet service such as Netmeeting, MSN and online games by enabling Virtual DMZ on the hosts in your LAN.

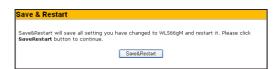
Click Virtual DMZ in the NAT Setting menu.



Enter the IP address of the host and click Finish.



Click Save & Restart to restart the wireless router and activate the settings.



### 4) Setting up DDNS

Dynamic DNS (DDNS) allows user to expose host to Internet through DDNS service provider. This function facilitates users who use dynamic IP service, i.e. the router receives a new IP address once the IP address release is expired. If you set up DDNS service on the wireless router, each time the wireless router connect to the Internet and get an IP address from ISP IP address pool, this function automatically updates your IP address information to DDNS service provider so that user on Internet can access the hosts and servers in your local area network through a predefined domain name registered at the DDNS service provider.

1 Click Miscellaneous from IP Config folder.



Select Yes to enable the DDNS service. If you have not a DDNS account, click Free Trial to apply for one.



After clicking Free Trial, you are directed to the homepage of www.DynDNS.org, where you can register and apply for DDNS services.

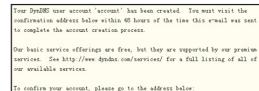
Read the policy and select "I have read...".



Enter your user name, e-mail address, password, then click Create Account



- A message prompts out informing that you account has been created. An e-mail is sent to your mailbox entered in the last step. Open your mailbox and read the mail.
- Open your e-mail to find the activation letter. Click the hyperlink to activate your account



https://www.dyndns.com/account/confirm/hbNtkWZBNhJaYM4emvCrqA

lowing the instructions in the password reset e-mail will also confirm your new account. If you don't receive the password reset ener, you should check with your e-mail provider to determine why you are not receiving these messages.

Account Created

The link directs you to a login page. Clink **login**.



8 Enter the user name and password then click **Login**.





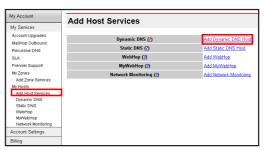
**9** After logging in, you can see this welcome message.

Logged In
You are currently logged in as: account (Lagout)

Select Services tab.



Click Add Dynamic DNS
Host



Enter the host name then click Add Host.



You can see this message when your hostname is successfully created.



Fill the account information into the DDNS setting fields of your wireless router.



- Click Finish.
- (6) Click Save & Restart to restart the wireless router and activate the settings.
- Now we are to verify whether DDNS is working. Click Start menu and select Run....Type cmd and click OK to open the CLI console.









Type ping account.dyndns.org (your DDNS domain name). If you can see the reply like what is shown in the right picture, DDNS is working correctly.

```
C:\WINDOWS\system32\cmd.exe

Nicrosoft Vindous XP [Version 5.1.2600]

CO Copyright 1985-2001 Nicrosoft Copp.

C:\Documents and Settings\Doc\ping account.dyndns.org

Pinging account.dyndns.org [192.168.123.21] with 32 bytes of data:

Reply from 192.168.123.21: bytes=32 time(ins IIL=64

Reply from 192.168.123.21: bytes=32 time(ins IIL=64
```



## 5) Setting up Bandwidth Management

Bandwidth Management provides a mechanism to setup bandwidths according to IP address or port or both. You can define the bandwidth policy, including minimum bandwidth and maximum bandwidth, to a fixed IP address or a fixed port or both for controlling the download traffic. You could also define upload bandwidth by setting up the NAT.

Click Basic Config page in Bandwidth Management folder.



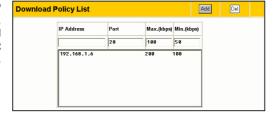
2 Select **Yes** to enable Bandwidth Management function.



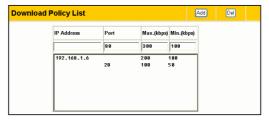
## O Download stream

If we want to limit the download bandwidth of a host within a speed range, for example, 100 to 200kbps, we need to fill in the host IP address, the maximum and the minimum data speeds into the download policy field. If the minimum speed is defined, the host can transmit data at a minimum data speed of 100kbps regardless of the network conditions.

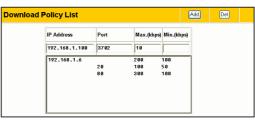
 To apply on all host an FTP download speed policy, leave the IP address field blank, input "20" in the Port field and define the speeds, then click Add.



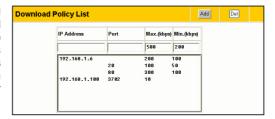
To set up web access download policy, input "80" in the **Port** field, define the speeds and click **Add**.



 To set up download bandwidth policy of a certain service for a host, input the host IP address and the port number of the service, define the speeds and click Add



4. To set up download bandwidth policy for the all hosts in your LAN, leave the IP address and port fields blank, define the speeds (the speeds are higher than their counterparts in other entries), then click Add.

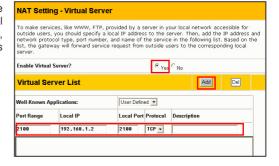


# 4 Upload stream

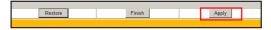
If you want to set up upload traffic control policy, for example, to limit the upload bandwidth of port 2100 of 192.168.1.2 within 10 to 80kbps, we shall first set up NAT policy.



 Select Yes to enable the Virtual Server. In the Vitual Server List field, fill the port, IP address into the fields and press Add.



2. Press Apply button.



3. Return to the Upload Policy List in Bandwidth Management setting page.



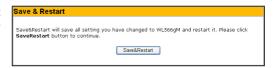
4. Set the **Port** as "2100", **Max** (**kbps**) as "80", **Min.(kbps**) as "10", then click **Add**.



Press Finish button.



Click Save & Restart to restart the wireless router and activate the settings.

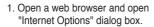




# 5. Troubleshooting

## 1. Cannot access to web browser for router configuration







Click on "Delete Cookies" and "Delete Files".

#### 2. Cannot Establish Connection via Wireless

#### Out of Range:

- · Put the router closer to the wireless client.
- · Try to change the channel setting.

#### Authentication:

- · Use wired connection to connect to router.
- · Check the wireless security setting.
- Do the hard reset on the wireless router by pressing the Reset button on the rear panel for more than 5 seconds.

#### Couldn't find the router:

- Do the hard reset on the wireless router by pressing the Reset button on the rear panal for more than 5 seconds.
- Check the setting in the wireless adapter such as SSID and encryption setting.

## 3. Cannot get access to the Internet via wireless LAN adapter

- · Move the router closer to the wireless client.
- · Check whether the wireless adapter is connected to the correct AP.
- Check whether the wireless channel in use conforms to the channels available in your country/ area.
- · Check encryption setting.
- · Check whether the ADSL or Cable connection is correct.
- Retry using another Ethernet cable.



#### 4.Internet is not accessible

- · Check the lights on ADSL modem and the Wireless Router
- Check whether the "WAN" LED on the Wireless Router is ON. If the LED is not ON. change the cable and try again.

### 4.1. When ADSL Modem "Link" light is ON (not blinking), this means Internet Access is Possible.

- · Restart your computer.
- Refer to the Quick Setup Guide of the wireless router and reconfigure the settings.
- Check whether the WAN LED on the router is ON or not.
- · Check wireless encryption settings.
- · Check whether the computer can get the IP address or not (via both wired network and wireless network).
- · Make sure your Web browser is configured to use the local LAN, and is not configured to use a proxy server.

### 4.2. If the ADSL "LINK" light blinks continuously or stays off, Internet access is not possible - the Router is unable to establish a connection with the ADSL network.

- · Make sure your cables are all correctly connected .
- · Disconnect the power cord from the ADSL or Cable modem, wait a few minutes, then reconnect the cord.
- If the ADSL light continues to blink or stays OFF, contact your ADSL service provider.

## 5. Network name or encryption keys are forgotten

- · Try to setup the wired connection for setup the wireless encryption again.
- Do the hard reset on the wireless router by pressing the Reset button on the rear panel for more than 5 seconds.

#### 6. How to reset to defaults

The following are factory default values. If you push the Restore button on the back of the ASUS Wireless Router for over 5 seconds, or click the "Restore" button on the "Factory Default" page under "Advanced Setup", the following default settings overwrite the old settings on your wireless router.

User Name: admin Subnet Mask: 255.255.255.0 Password: admin DNS Server 1: 192.168.1.1 Enable DHCP: Yes (if plug in Wan cable) DNS Server 2: (Blank) IP address: 192.168.1.1 SSID: default

Domain Name: (Blank)



# 6. Additional Information: EZSetup

# 1) Utility Installation for WL-566gM



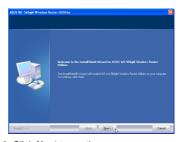
 Click Install ASUS Wireless Router Utilities to run the setup installation program.



3. Click **Next** to install the utility in the designated location.



Select Yes and press Finish to restart your computer.



2. Click Next to continue.



4. Select a program folder and click Next.

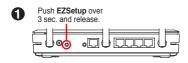


6. Open the EZSetup Wizard.



## 2) EZSetup

Wireless LAN setup will complete in two easy steps. First open the EZSetup utility form Start menu, then push the EZSetup button on the rear panel for 3 seconds.





- If the setup button is pushed without running the EZsetup wizard utility, the PWR indicator will flash and Internet connections will pause for a short period but will then return to normal operation without change.
- 2) To use EZSetup, you must have an ASUS wireless adapter such as WL-106gM.



Click the **EZSetup** button in the utility.

Note: Use EZSetup Wizard with one wireless client at a time. If the wireless client computer cannot discover the wireless router while in EZSetup mode, please shorten the distance between the client and the router.





Wireless settings, including network name and network keys, are generated automatically. You can modify these settings manually. Note if your wireless router is configured before, select **Preserve original wireless router settings** to use the current value. Click **Next** to continue.



If you need to configure the ISP settings for your wireless router, select **Configure ISP settings**, click **Next** and follow the instructions to complete the settings.



Setup is complete, press **Print/Save Wireless LAN Settings** button for future reference. Click Finish to exit the EZSetup utility.

# 7. Appendix



## FC FCC Warning Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



#### CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### **Prohibition of Co-location**

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter

# Safety Information

To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between the radiator and your body. Use on the supplied antenna.

# Declaration of Conformity for R&TTE directive 1999/5/EC

Essential requirements - Article 3

Protection requirements for health and safety - Article 3.1a



Testing for electric safety according to EN 60950-1 has been conducted. These are considered relevant and sufficient.

Protection requirements for electromagnetic compatibility - Article 3.1b

Testing for electromagnetic compatibility according to EN 301 489-1 and EN 301 489-17 has been conducted. These are considered relevant and sufficient.

Effective use of the radio spectrum – Article 3.2

Testing for radio test suites according to EN 300 328- 2 has been conducted. These are considered relevant and sufficient.

# **CE Mark Warning**



This is a Class B product, in a domestic environment, this product may cause radio  $\sqrt{!}$  interference, in which case the user may be required to take adequate measures.